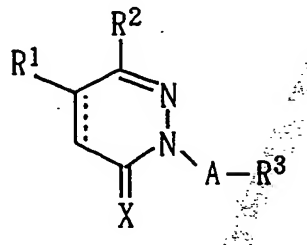
CLAIMS

1. A pyridazine derivative represented by the following formula (1):



(1)

wherein R^1 represents a substituted or unsubstituted aryl group, R^2 represents a phenyl group substituted at least at 4-position by a lower alkoxyl group, a lower alkylthio group, a lower alkylsulfinyl group or a lower alkylsulfonyl group, and optionally has one or more substituents at the remaining positions, R^3 represents a hydrogen atom, a lower alkoxyl group, a halogenated lower alkyl group, a lower cycloalkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted aryloxy group, a substituted or unsubstituted, nitrogen-containing heterocyclic ring residue, a substituted or unsubstituted aminocarbonyl group, or a lower alkylcarbonyl group, A represents a single bond or a linear or branched lower alkylene group or lower alkenylene group, X represents an oxygen atom or a sulfur atom, and the dashed line indicates that the carbon-carbon bond between the 4-position and

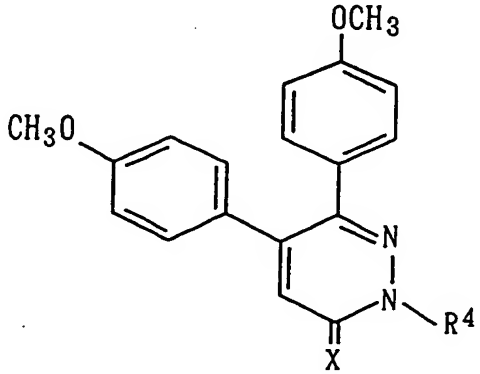
the 5-position is a single bond or a double bond, with the proviso that A is a single bond when R^3 is a halogenated lower alkyl group and that the following combinations are excluded: R^1 and R^2 are 4-methoxyphenyl groups, X is an oxygen atom, the carbon-carbon bond at the 4-position and the 5-position is a double bond, A is a single bond, and R^3 is a hydrogen atom or a 2-chloroethyl group; or a salt thereof.

2. A pyridazine derivative or a salt thereof according to claim 1, wherein R^1 represents a substituted or unsubstituted phenyl or pyridyl group.

3. A pyridazine derivative or a salt thereof according to claim 1, wherein R^1 represents a phenyl or pyridyl group which may be substituted by 1 to 3 substituents selected from halogen atoms and lower alkoxy groups; R^2 represents a phenyl group, which may be substituted at 4-position by a lower alkoxyl group, a lower alkylthio group, a lower alkylsulfinyl group or a lower alkylsulfonyl group, and at the other positions by 1 or 2 substituents selected from halogen atoms, lower alkoxyl groups, lower alkylthio groups, lower alkylsulfinyl groups and lower alkylsulfonyl groups; R^3 represents a hydrogen atom, a lower alkoxyl group, a halogenated lower alkyl group, a lower cycloalkyl group, a phenyl, pyridyl or phenyloxy group which may

be substituted by 1 to 3 substituents selected from halogen atoms, lower alkyl groups, lower alkoxyl groups, carboxyl group, lower alkoxycarbonyl groups, nitro group, amino group, lower alkylamino groups and lower alkylthio groups, a substituted or unsubstituted piperidino, piperidyl, piperazino or morpholino group, a substituted or unsubstituted aminocarbonyl group, or a lower alkylcarbonyl group; and A represents a linear or branched lower alkylene group having 1 to 6 carbon atoms or a linear or branched alkenylene group having 2 to 9 carbon atoms.

4. A pyridazine derivative or a salt thereof according to claim 1, which is a compound represented by the following formula (1A):



(1A)

wherein R^4 represents a linear or branched lower alkyl or lower alkenylene group, a lower cycloalkyl group or a lower cycloalkylmethyl group, and X represents an oxygen atom or a sulfur atom; or a salt thereof.

5. A pyridazine derivative or a salt thereof according to claim 1, which is 5,6-bis(4-methoxyphenyl)-2-ethyl-2H-pyridazin-3-one, 5,6-bis(4-methoxyphenyl)-2-methyl-2H-pyridazin-3-one, 5,6-bis(4-methoxyphenyl)-2-isopropyl-2H-pyridazin-3-one, 5,6-bis(4-methoxyphenyl)-2-isobutyl-2H-pyridazin-3-one, 2-allyl-5,6-bis(4-methoxyphenyl)-2H-pyridazin-3-one, 5,6-bis(4-methoxyphenyl)-2-cyclopropyl-2H-pyridazin-3-one, 5,6-bis(4-methoxyphenyl)-2-cyclopropylmethyl-2H-pyridazin-3-one, 5,6-bis(4-methoxyphenyl)-2-cyclopropylmethyl-2H-pyridazine-3-thione, 5,6-bis(4-methoxyphenyl)-2-cyclopentyl-2H-pyridazin-3-one, 5,6-bis(4-methoxyphenyl)-2-cyclopentylmethyl-2H-pyridazin-3-one, 5,6-bis(4-methoxyphenyl)-2-(4-chlorocinnamyl)-2H-pyridazin-3-one, 5-(4-chlorophenyl)-6-(4-methylthiophenyl)-2-benzyl-2H-pyridazin-3-one, 5,6-bis(4-methoxyphenyl)-2-benzyl-2H-pyridazine-3-thione, or 5,6-bis(3-fluoro-4-methoxyphenyl)-2-ethyl-2H-pyridazin-3-one; or a salt thereof.

6. A medicine comprising, as an effective ingredient, a pyridazine derivative or a salt thereof according to any one of claims 1-5.

7. A medicine according to claim 6, which is an interleukin-1β production inhibitor.

8. A medicine according to claim 6, which is a

preventive or therapeutic for a disease caused by stimulation of interleukin-1β production.

9. A medicine according to claim 6, which is a preventive or therapeutic for an immune system disease, an inflammatory disease, an ischemic disease, osteoporosis or ichorrhemia.

10. A medicine according to claim 6, which is a preventive or therapeutic for rheumatism, arthritis or inflammatory colitis.

11. An interleukin-1β production inhibitor comprising, as an effective ingredient, a pyridazine derivative or a salt thereof according to any one of claims 1-5.

12. A pharmaceutical composition comprising a pyridazine derivative or a salt thereof according to any one of claims 1-5 and a pharmaceutically acceptable carrier.

13. Use of a pyridazine derivative or a salt thereof according to any one of claims 1-5 as a medicine.

14. A method for the treatment of a disease caused by stimulation of interleukin-1β production, which comprises administering a pyridazine derivative or a salt thereof according to any one of claims 1-5.